

# ACO Building Drainage



**Drainage design**  
Product Catalogue

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[www.aco.co.uk](http://www.aco.co.uk)

## ACO Building Drainage

ACO building drainage specialise in the design and manufacture of corrosion resistant drainage systems and products. These are tailored to suit the specific needs of each project, and cover a wide variety of commercial and industrial applications.

Fully engineered by our in-house technical design team, these solutions are designed to eliminate design risk, optimise installation and minimise lifetime ownership costs. Every product in the range is designed to provide exceptional performance, with a high aesthetic finish and durability, whether used internally or externally.

Our team has specialists in design area covering drainage, grease management, pipework solutions and back flow. They also have experience in a wide range of sectors – from healthcare, food and beverage manufacture, sport & leisure, catering and education. In addition they have production knowledge enabling the design and manufacture of engineered solutions to suit the physical and commercial constraints of any project.

As our built environment grows, and related legislation becomes more complex, the support of our technical design team in any project can help to provide complete solution in the knowledge that all relevant criteria has been considered. This technical expertise is backed by ACO Building Drainage's reputation as a division of UK based ACO Technologies, part of the worldwide ACO group.

**ACO Building Drainage Enquiries Team:**  
Tel: +44(0)1462 810421  
Email: abdestimating@aco.co.uk

- A complete pricing service to stockists, contractors and clients.

**ACO Building Drainage Customer Services Team:**  
Tel: +44(0)1462 810411  
Email: abdcommercial@aco.co.uk

- Product availability, delivery lead times, and all other queries including collections, returns and product / service issues.

**ACO Building Drainage Design Services Team:**  
Tel: +44(0)1462 810431  
Email: abdtechnical@aco.co.uk

- Technical and installation advice.
- Detailed design and 'Value Engineering' advice.
- Hydraulic calculations and AutoCAD drawings.
- Advice on the suitability of ACO equivalent products.

**ACO Building Drainage Marketing and Media Support:**  
Tel: +44(0)1462 810400  
Email: abdmarketing@aco.co.uk

- For all product brochures, imagery or merchandising material requests.

## ACO System Chain - drainage solutions for tomorrow's environmental conditions



**collect:**

- Stainless Steel and Galvanised Steel Channels
- Stainless Steel Gullies
- Pipe Systems
- Roof / Balcony Drainage
- Wetroom & Shower Drainage



**clean:**

- Grease Management Systems



**hold:**

- Anti-flood Backflow Protection Systems



**release:**

- Lifting Stations

**Office address and contact details:**

ACO Building Drainage  
ACO Business Centre  
Caxton Road  
Bedford  
Bedfordshire  
MK41 0LF

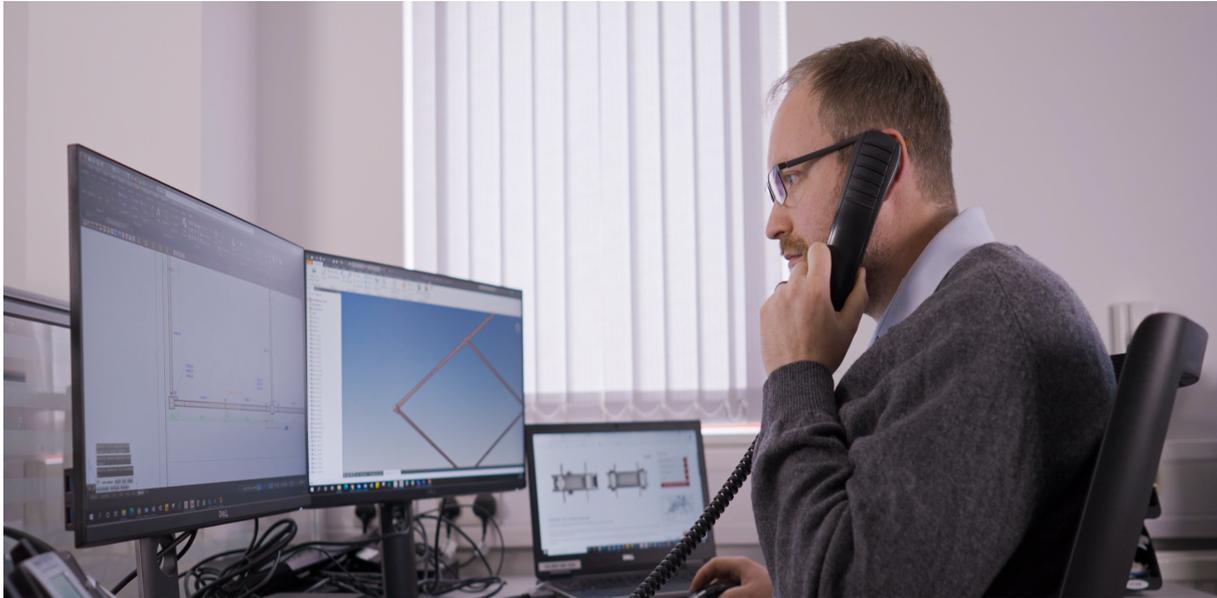
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Company Registration No: 1854115  
VAT No: GB 650 7977 05

www.aco.co.uk

For quick access to our website, scan:





From first drawing to final handover, preserving the design vision is never easy. Somewhere along the line there are bound to be extra costs and compromises. But there's one critical part of the project that could reduce this, if considered early enough – drainage. Yes, drainage. With building performance under the spotlight and permitted discharge rates being restricted, managing water from roofs to sewers adds complex challenges. Attenuation requirements and hydraulic loads need careful consideration while drainage must be aesthetically pleasing. Yet these decisions often get left till way too late in the project.

**So why does that matter?**

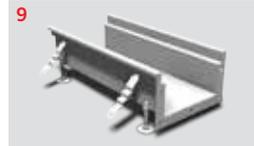
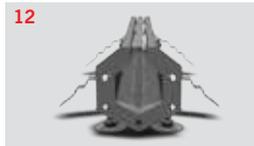
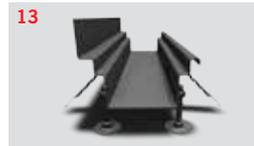
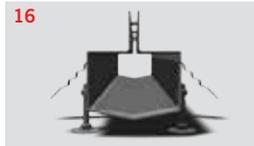
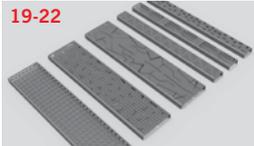
At ACO, our Drainage Design Services team believes early consideration of drainage solutions not only helps achieve a look that ties in with the design concept, but knowing the depths available for floor or balcony drainage from the beginning can have massive benefits for the end result. It allows us to calculate and advise on exactly the right system to handle the volume of water for the application, whereas late engagement may mean raising floor levels to accommodate different products – this disrupts other trades, costs more and compromises both timescales and design integrity.

In other words, to preserve your design vision, look at drainage earlier.

ACO has 75 years of experience in the manufacture of drainage systems. Our design specialists are fully versed in the physical and commercial constraints of major building projects, from hydraulics to grease management.

Contact ACO and we'll provide the expertise of our bespoke design solutions as a free service. That way, we'll have kept your costs down before you've even broken ground.

**Product Contents**

<p>6</p>  <p>ACO AS101 DPC Channel</p>	<p>7</p>  <p>ACO AS201 DPC Channel</p>	<p>8</p>  <p>ACO AS301 Box Channel</p>	<p>9</p>  <p>ACO AS401 Fire Lift</p>
<p>10</p>  <p>ACO AS501 Easy-clean</p>	<p>11</p>  <p>ACO AS601 Slot Channel</p>	<p>12</p>  <p>ACO AS601 Slot Channel with Toolbar</p>	<p>13</p>  <p>ACO AS701 Upstand</p>
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<p>18</p>  <p>Radius Channel</p>	<p>19-22</p>  <p>Gratings</p>		

**Application**

-  Ideal for swimming pools and wet usage in leisure centres
-  Suited to internal and external usage in places such as hotels, retail etc.
-  Optimal in pharmaceutical environments
-  Ideal for industrial workplaces
-  Suited to food production sectors
-  Optimal for landscaped areas

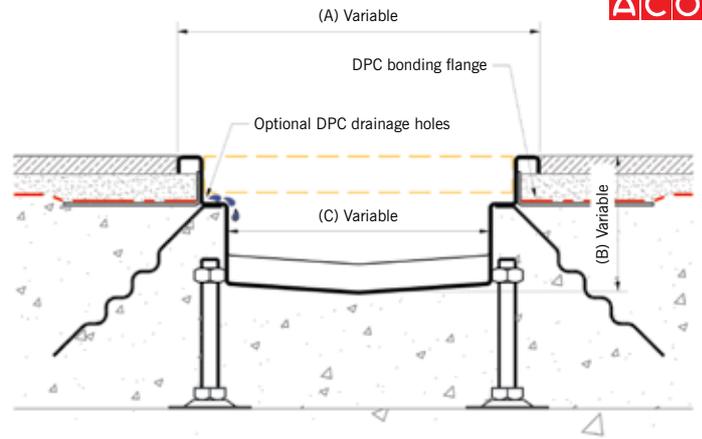
**Load Classes**

Load classes and typical uses according to BS EN 1433:2002

-  **A 15**  
Pedestrian, cycleways and domestic drives
-  **B 125**  
Pedestrian precincts, light vehicles, private car parks
-  **C 250**  
Parking areas, service stations (cars) and slow-moving light commercial vehicles

**Note:** The application icons shown above are generic; used to aid product selection. Please contact ACO Building Drainage Technical for further clarification and advice

## ACO AS101 DPC Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

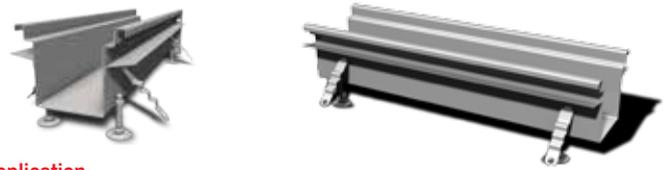
6

### Specification

- Provides flange to seal to secondary DPC
- DPC drainage option available
- Can be modelled hydraulically to confirm flow capacities
- Grades 304 (1.4301) or 316 (1.4404) stainless steel

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



### Application



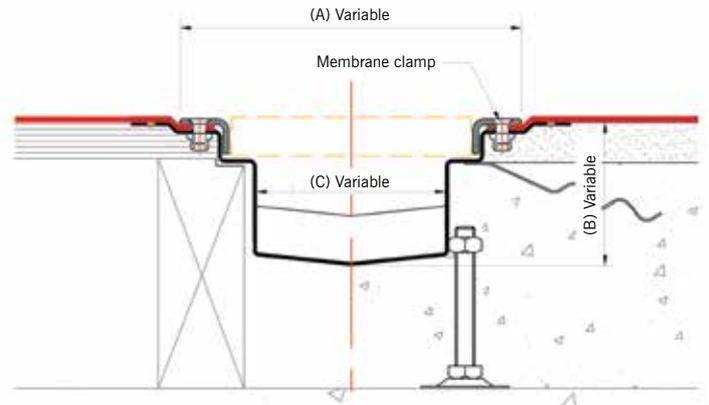
### Load Classes



Length  
Width (A)  
Depth (B)  
Bore (C)  
Load class  
Grate type

For customisable options  
please call 01462 810431

## ACO AS201 Membrane Clamp Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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### Specification

- Provides a mechanical clamp for vinyl flooring
- Accommodates standard grates
- Suitable for suspended floors
- Grades 304 or 316

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



### Application



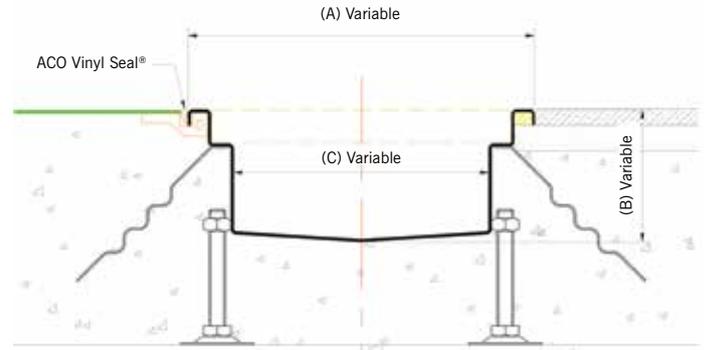
### Load Classes



Length  
Width (A)  
Depth (B)  
Bore (C)  
Load class  
Grate type

For customisable options  
please call 01462 810431

# ACO AS301 Box Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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## Specification

- Standard channel profile
- Suited to internal and external application
- Standard and high security locking available
- Grades 304 or 316
- Interfaces with ACO vinyl seal

## What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



## Application



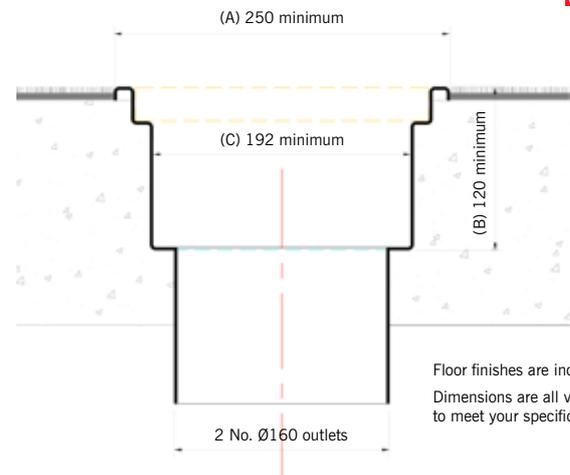
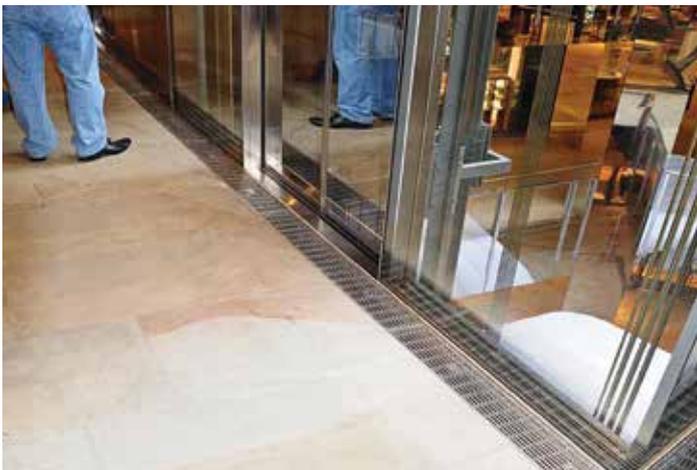
## Load Classes



Length  
Width (A)  
Depth (B)  
Bore (C)  
Load class  
Grate type

For customisable options  
please call 01462 810431

# ACO AS401 Fire Lift Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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## Specification

- Up to 25 l/s capacity (2x160mm diameter untrapped outlets)
- Designed and hydraulically modelled to your specifications
- Channel conforms to BS 9999. 2008
- Grades 304 or 316
- Can be designed for carpet or flexible flooring
- Floor structure must accommodate deep channel depth

## What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



## Application



## Load Classes



Length  
Min. width (A)  
Min. depth (B)  
Min. Bore (C)

For customisable options  
please call 01462 810431

## ACO AS501 Easy-clean Channel

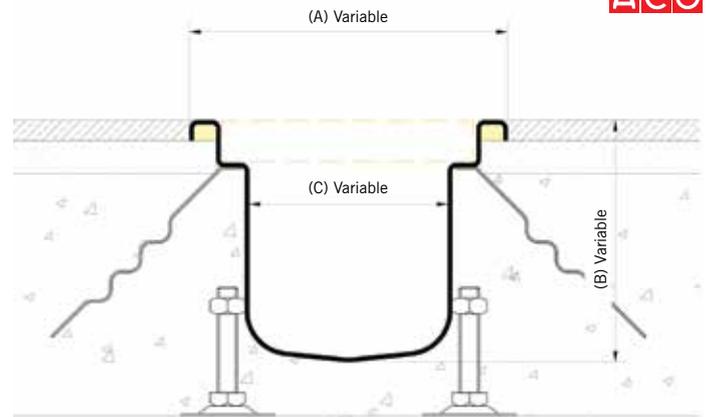


### Specification

- Radius base profile
- Minimises debris build up
- Ideal for food processing or anywhere hygiene is a prerequisite
- Grades 304 or 316
- Interfaces with ACO vinyl seal

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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### Application



### Load Classes



Length  
Width (A)  
Depth (B)  
Bore (C)  
Load class  
Grate type

For customisable options  
please call 01462 810431

## ACO AS601 Slot Channel

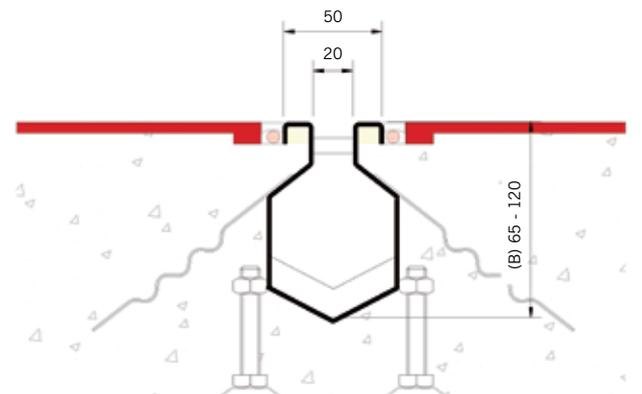


### Specification

- Discrete slot channel
- 50mm visible width
- Slot 20mm
- Interfaces with ACO vinyl seal
- Grades 304 or 316

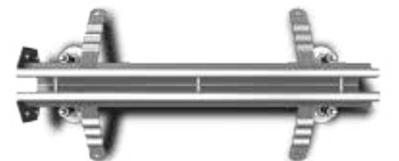
### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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### Application



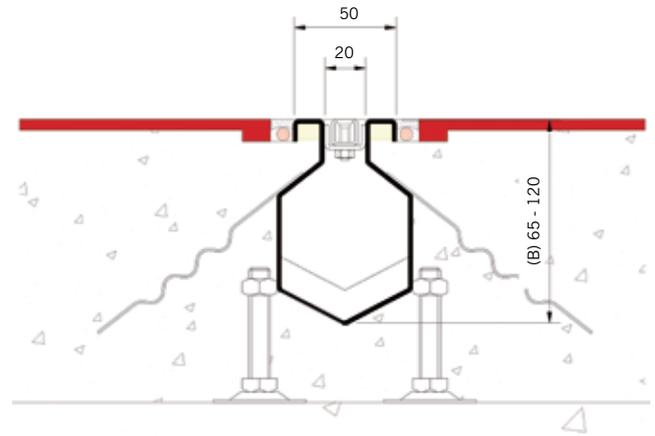
### Load Classes



Length  
Depth (B)

For customisable options  
please call 01462 810431

## ACO AS601 Slot Channel with Toe bar



Floor finishes are indicative  
Dimensions are all variable to meet your specification

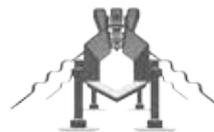
12

### Specification

- Toe bar reduces slot to 5mm
- Interfaces with ACO vinyl seal
- Grades 304 or 316
- Low capacity drainage
- No grating required

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



### Application



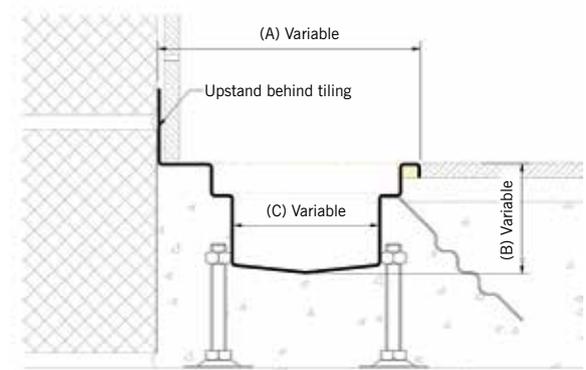
### Load Classes



Length  
Depth (B)

For customisable options  
please call 01462 810431

## ACO AS701 Uprand Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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### Specification

- Ideal for areas where a wall tanking is required
- Integrates with tiled walls
- Ideal for public shower areas
- Grades 304 or 316

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



### Application



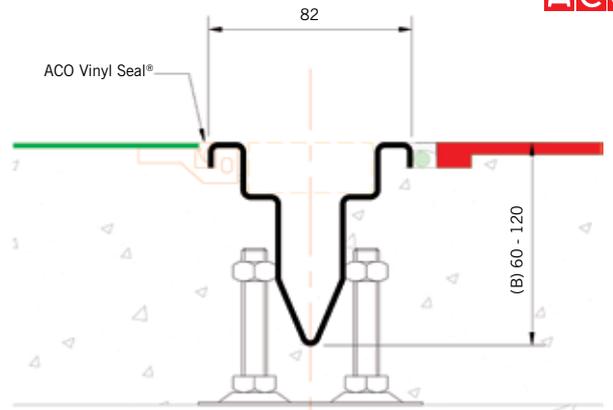
### Load Classes



Length  
Width (A)  
Depth (B)  
Bore (C)  
Load class  
Grate type

For customisable options  
please call 01462 810431

# ACO AS801 Micro Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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## Specification

- 82mm wide discrete channel
- Bespoke grating patterns to suit
- Suited to low flow applications
- V-Profile to assist debris removal
- Interfaces with ACO Vinyl Seal
- Grades 304 or 316

## What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



## Application



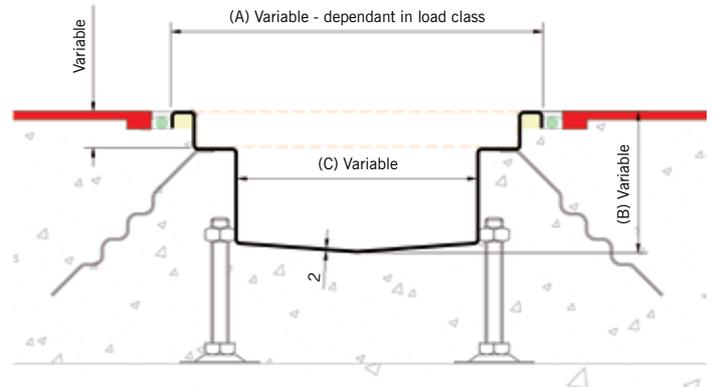
## Load Classes



Length  
Depth (B)  
Grate type  
- (50mm wide)

For customisable options  
please call 01462 810431

# ACO AS901 Hi Load Channel



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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## Specification

- Extended grating seat depth and width
- For high load applications up to load class D
- Grades 304 or 316

## What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



## Application



## Load Classes



Length  
Width (A)  
Depth (B)  
Bore (C)  
Load class  
Grate type

For customisable options  
please call 01462 810431

## ACO AS1010 Brickslot Channel

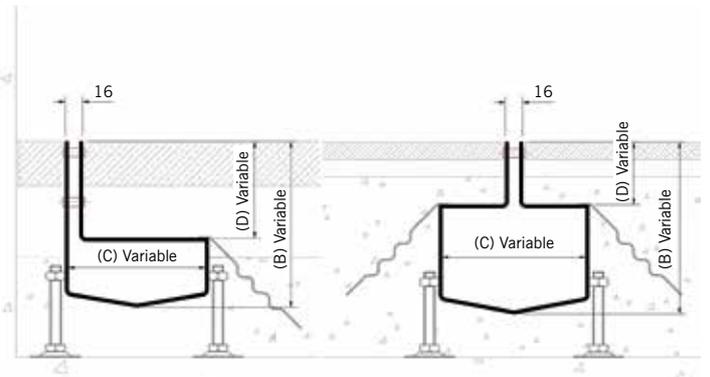


### Specification

- 10mm wide channel throat visible on surface
- Conventional bore for high capacity
- Heel safe aperture for safety and enhanced aesthetics
- Available in radius version
- Ideal for external prestige applications
- Grades 304 or 316

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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### Application



### Load Classes



Length  
Depth (B)  
Bore (C)  
Throat D

For customisable options  
please call 01462 810431

## ACO AS1050 Discrete Channel

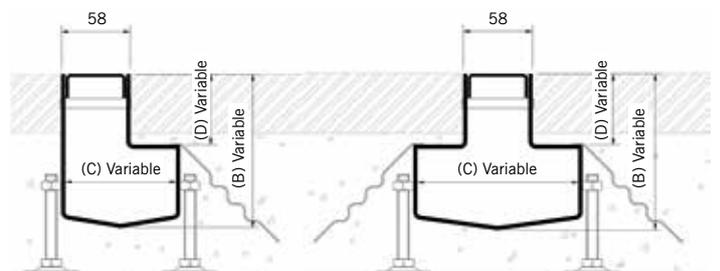


### Specification

- 50mm wide channel throat provides cleaning jet access
- Conventional bore for high capacity
- Heel safe gratings for safety and enhanced aesthetics
- Available radius version
- Ideal for external prestige applications
- Grades 304 or 316

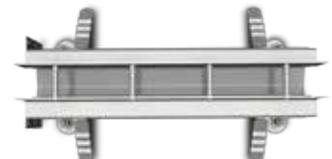
### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



Floor finishes are indicative  
Dimensions are all variable to meet your specification

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### Application



### Load Classes



Length  
Depth (B)  
Bore (C)  
Load class  
Grate type - 50 wide

For customisable options  
please call 01462 810431

## ACO Radius Channel



### Specification

- Radius is completely customisable to meet your needs
- Flat bottom channels only

### What we want to know...

- What the sub-base is and the floor build ups (provide a section ideally)
- Amount of water to be drained/+area to be drained and rainfall intensity
- Discharging into foul or storm
- Position and number of outlets (provide a plan detail ideally)
- Outlet connection diameter
- Whether any caustic solutions are to be drained (chlorinated water, acids, alkalis etc)



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### Application



### Load Classes



Length  
Depth (B)  
Bore (C)  
Throat D

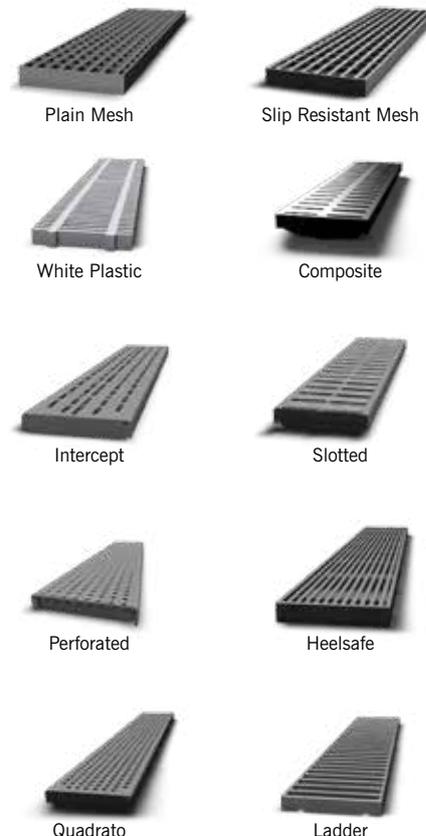
For customisable options  
please call 01462 810431

## ACO Gratings Load Class A



### Specification

- Load class A is the lowest load capacity we provide
- Suitable to be used with pedestrians, cyclists and planted areas
- BS EN 1433 A15
- BS EN 124 A15
- BS EN 1253 H1.5, K3 & L15
- Load capacity up to 1,500kg (15kN)



### AS101

- Quadrato
- Intercept
- White Plastic

### AS201

- Quadrato
- Intercept
- White Plastic
- Heelsafe

### AS301

- All gratings suitable

### AS401

- Heelsafe

### AS701

- All gratings suitable

### AS2001

- Plain Mesh
- Slip Resistant Mesh
- Ladder

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## ACO Gratings Load Class B



Heelsafe



Intercept



Heelsafe External

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### Specification

- Load class B is a mid range load class option we provide
- Suitable to be used with car parks, residential driveways & delivery vehicles at low speed
- BS EN 1433 B125
- BS EN 124 B125
- BS EN 1253 R50 & M125
- Load capacity up to 12,500kg (125kN=12.5Tons)

### AS101

- Heelsafe
- Intercept

### AS301

- Heelsafe
- Intercept

### AS701

- Heelsafe
- Intercept

### AS1001

- Heelsafe

For more information  
please call 01462 810431

## ACO Gratings Load Class C



Plain Mesh



Perforated



Slip Resistant Mesh



Ladder



Composite



Slotted

### AS101

- Plain Mesh
- Slip Resistant Mesh
- Ladder
- Perforated Slotted
- Composite (Black)

### AS501

- Plain Mesh
- Slip Resistant Mesh
- Ladder

### AS701

- Plain Mesh
- Slip Resistant Mesh
- Ladder
- Perforated Slotted
- Composite (Black)

### AS301

- Plain Mesh
- Slip Resistant Mesh
- Ladder
- Perforated Slotted
- Composite (Black)

### AS901

- Ladder grate which can achieve Load Class D

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### Specification

- Load class C is the highest load class we provide in the engineered solutions range
- Suitable for use with heavy duty loads, industrial and commercial sites
- BS EN 1433 C250
- BS EN 124 C250
- BS EN 1253 N250
- Load capacity up to 25,000kg (250kN=25Tons)

For more information  
please call 01462 810431

# Stainless Steel Explained

Stainless steel is the name given to a wide range of steels which have the characteristics of greatly enhanced corrosion resistance over conventional mild and low alloy steels.

The enhanced corrosion resistance of stainless steel essentially comes from the addition of at least 11% chromium, however most stainless steels commonly used contain around 18% chromium. Other significant alloying elements include nickel and for superior corrosion resistant properties, molybdenum.

For ACO Building Drainage applications, the principal properties of stainless steel may be summarised as follows:

- Durable and corrosion resistant in highly aggressive environments.
- Hygienic, easily cleaned surfaces.
- Aesthetically attractive surface finish.
- Good forming and fabrication characteristics.
- Excellent strength and resistance to oxidation at high temperatures.

All these make stainless steel an obvious first choice material for demanding applications.

## Stainless Steel Families

Stainless steel is used across a wide spectrum of engineering applications and this has led to the development of the vast range of different types of stainless steels that are now available.

Austenitic Stainless Steel is the most widely used and encompasses the generic 304 and 316 grades of material. These materials are used in the ACO Building Drainage manufacturing process and are ideal for applications including food processing, leisure, dairy, brewing, pharmaceutical, chemical and petrochemical industries.

304 grade stainless steels contain around 18% chromium and 10% nickel and provides excellent corrosion resistance.



For applications where superior corrosion resistance properties are required under extreme conditions particularly where chlorides are involved, 316 grade stainless steels are used and contain around 17% chromium, 12% nickel and 2.2% molybdenum.

Unlike all other grades of stainless steels, austenitic grades are non-magnetic and as a consequence magnetic particles are not attracted to the system surfaces which otherwise would encourage both contamination and corrosion.

Ferritic, Martensitic and duplex stainless steels are unsuitable for drainage products.

# CE ACO go further than the minimum legal standard

ACO believe that higher quality standards are vital for any product that is being installed permanently, and as market leader our customers would expect nothing else from us. Therefore ACO design and manufacture products to the full requirements of applicable harmonised standards. This ensures that the product is not only safe, but all aspects of performance and function are of the highest possible quality.

In addition to product specific standards ACO also has Integrated Management Registration PAS 99:2006, which covers the design, manufacture and supply of our products, and is compliant with ISO 9001:2008, and ISO 14001:2004 and BS OHSAS 18001:2007.

ACO Building Drainage introduced CE marking on its standard products ahead of schedule in 2011. Providing assurance to our customers has been a key driver for ACO. We have done everything to protect our clients and end-users. Please contact us for help and advice.

The implications of not carrying CE marking on products are potentially very serious for the manufacturer and supply chain. After 1 July 2013 it will become a criminal offence to place any construction product covered by hENs on the market without an authorised CE mark. Any companies who do so could find themselves pursued by Trading Standards. If convicted, this could mean a fine and even potentially a prison sentence. So make sure that you follow the rules.

# Pickle Passivation Process



**ACO resources include the largest pickle passivation plant in Europe.**

The standard ACO Building Drainage manufacturing process uses the pickle passivation chemical finishing process to restore the products to their full optimum corrosion resistant state without damaging the surface finish. This is considered the best post-fabrication surface treatment method.

**Pickle Passivation fully restores the corrosion resistance properties of stainless steel ensuring optimum performance.**



FM 13502

**BS EN ISO 9001:2008**

ACO Technologies plc has been certified and registered by BSI to operate a quality management system which complies with the requirements of BS EN ISO 9001:2000.



NBS is the Architectural standard specification and ACO products are fully detailed in the NBS Plus section.



ACO Building Drainage is a member of FeRFA the Resin Flooring Association.



ACO Building Drainage are members of Campden BRI.



ACO is a member of the Foodservice Consultants Society International (UK). FCSI is the premier association promoting professionalism in foodservice and hospitality consulting.



ACO Technologies plc is a member of Construction Products Association.



ACO is a leading member of the European Hygienic Engineering & Design Group (EHEDG).



ACO is a member of the Construction CPD Certification Service. The Construction CPD Certification Service assists in the dissemination of high quality, independently certified, continuing personal/professional development (CPD).



The Builders Merchant Federation (BMF) provides Builders Merchants with the support and advice needed to run their business in a competitive environment. ACO hold a suppliers and manufacturers membership.



ACO Technologies plc is a member of BASEA (British Airport Service & Equipment Association).



ACO Building Drainage is a member of the Fabricated Access Cover Trade Association.



Link-up ID: 18601

ACO is registered under the Rail Industry Supplier Qualification and Registration Scheme for Civil Engineering - Supply of Materials, Drainage products (inc. Environmental Protection products).



ACO Building Drainage is an affiliate member of B&ES.



ACO Building Drainage are affiliate members of the FDF.



For quick access to our website, scan:



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